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2-6-02



Express Mail No.: EV 053647304 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: H. HAHN

Serial No.: 09/972,030

Group Art Unit: 2819

Filed: October 5, 2001

Examiner:

For: COMPUTER SYSTEM AND METHOD
FOR SEGMENTATION OF A DIGITAL
IMAGE

Attorney Docket No.: 739-X01-006

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the application.

1. Enclosures accompanying this Information Disclosure Statement are:

- 1a. ☒ A list of all patents, publications, applications, or other information submitted for consideration by the office.
- 1b. A legible copy of :
 - ☒ Each U.S. patent application publication and U.S. and foreign patent;
 - ☒ Each publication or that portion which caused it to be listed on the PTO-1449;
 - ☐ For each cited pending U.S. application, the application specification including the claims, and any drawing of the application, or portion of the application which caused it to be listed on the PTO-1449 including any claims directed to that portion;
 - ☒ all other information or portion which caused it to be listed on the PTO-1449.
- 1c. ☐ An English language copy of search report(s) from a counterpart foreign application or PCT International Search Report.
- 1d. ☐ Explanations of relevancy (ATTACHMENT 1(d), hereto) or English language abstracts of the non-English language publications.

2. ☒ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(b):

- ☒ Within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
- ☐ Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
- ☒ Before the mailing of the first Office action on the merits;
- ☐ Before the mailing of a first Office action after the filing of a request for continued examination under §1.114.

3. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(c) after the period specified in 37 C.F.R. §1.97(b), but before the mailing date of any of a final action under 37 C.F.R. §1.113, a notice of allowance under 37 C.F.R. §1.311 or an action that otherwise closes prosecution in the application.

(Check either Item 3a or 3b)

- 3a. ☐ The Certification Statement in Item 5 below is applicable. Accordingly, no fee is required.
- 3b. ☐ The \$180.00 fee set forth in 37 C.F.R. §1.17(p) in accordance with 37 C.F.R. §1.97(c) is:
- ☐ enclosed
- ☐ to be charged to Deposit Account No. 500601

(Item 3b to be checked if any reference known for more than 3 months)

4. ☐ This Information Disclosure Statement is filed under 37 C.F.R. §1.97(d) after the period specified in 37 C.F.R. §1.97(c), but on or before the date of payment of the issue fee.

The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:

- ☐ enclosed.
- ☐ to be charged to Deposit Account No. 500601

The Certification Statement in Item 5 below is applicable.

5. ☐ Certification Statement *(applicable if Item 3a or Item 4 is checked)*

(Check either Item 5a or 5b)

- 5a. ☐ In accordance with 37 C.F.R. §1.97(e)(1), it is certified that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- 5b. ☐ In accordance with 37 C.F.R. §1.97(e)(2), it is certified that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the undersigned after making reasonable inquiry, was known by any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

6. ☐ This application is a continuation application under 37 C.F.R. §1.60 or §1.53(b) or (d).

(Check appropriate Items 6a, 6b and/or 6c)

- 6a. ☐ A Petition to Withdraw from issue under 37 C.F.R. §1.313(b)(5) is concurrently filed herewith.
- 6b. ☐ Copies of publications listed on Form PTO-1449 from prior application Serial No. __, filed on __, of which this application claims priority under 35 U.S.C. §120, are not being submitted pursuant to 37 C.F.R. §1.98(d).
- 6c. ☐ Copies of the publications listed on Form PTO-1449 were not previously cited in prior application Serial No. __, filed on __, and are provided herewith.

7. ☐ This is a Supplemental Information Disclosure Statement. *(Check either Item 7a or 7b)*

7a. ☐ This Supplemental Information Disclosure Statement under 37 C.F.R. §1.97(f) supplements the Information Disclosure Statement filed on __. A bona fide attempt was made to comply with 37 C.F.R. §1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental Information Disclosure Statement can be considered as if properly filed on __.

7b. ☐ This Supplemental Information Disclosure Statement is timely filed within one (1) month of a PTO Notice under 37 C.F.R. §1.97(i).

8. ☐ In accordance with 37 C.F.R. §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:

(Check Item 8a, 8b, or 8c)

8a. ☐ satisfied because all non-English language publications were cited on the enclosed English language copy of the PCT International Search Report or the search report from a counterpart foreign application indicating the degree of relevance found by the foreign office.

8b. ☐ set forth in the application.

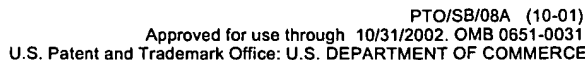
8c. ☐ enclosed as an attachment hereto.

9. ☒ The Commissioner is authorized to charge any additional fee required or credit any overpayment for this Information Disclosure Statement and/or Petition to Deposit Account No. 500601

10. ☒ No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than a search report of a foreign counterpart application or PCT International Search Report if submitted herewith). 37 C.F.R. §§1.97(g) and (h).

Respectfully Submitted,

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Substitute for form 1449A/PTO

(use as many sheets as necessary)

Sheet	1	of	2
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Complete if Known

Application Number	09/972,030
Filing Date	October 5, 2001
First Named Inventor	HAHN
Art Unit	2819
Examiner Name	
Attorney Docket Number	739-X01-006

U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

[illegible]

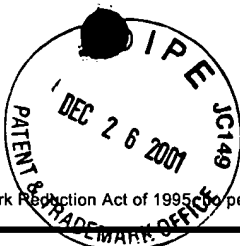
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Date Considered

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¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) Sheet <u>2</u> of <u>2</u>		Complete if Known	
		Application Number	09/972,030
		Filing Date	October 5, 2001
		First Named Inventor	HAHN
		Group Art Unit	2819
		Examiner Name	
		Attorney Docket Number	739-X01-006

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA	K.H. Hoehne and W.A. Hanson, "Interactive 3D segmentation of MRI and CT volumes using morphological operations", J Computer Assisted Tomography 16(2): 185-294, 1992.	
	CB	L. Lemieux, G. Hagemann, K. Krakow, and F.G. Woermann, "Fast, accurate, and reproducible automatic segmentation of the brain in T1-weighted volume MRI data", Magnetic Resonance in Medicine 42(1): 127-35, Jul 1999.	
	CC	A.M. Dale, B. Fischl, and M.I. Sereno, "Cortical surface-based analysis I: Segmentation and surface reconstruction", NeuroImage 9: 179-194, 1999.	
	CD	R.J. van der Geest, V.G.M. Buller, E. Jansen, H.J. Lamb, L.H.B. Baur, E.E. van der Wall, A. de Roos, and J.H.C. Reiber, "Comparison between manual and semi-automated analysis of left ventricular volume parameters from short-axis MR images", J Computer Assisted Tomography 21(5): 756-765, 1997.	
	CE	J. Sijbers, P. Scheunders, M. Verhoye, A. Van der Linden, D. Van Dyck, and E. Raman, "Watershed-based segmentation of 3D MR data for volume quantization", Magnetic Resonance Imaging 15(4), 1997.	
	CF	H.K. Hahn and H.-O. Peitgen, "The Skull Stripping Problem In MRI Solved By A Single 3D Watershed Transformation", Medical Image Computing and Computer-Assisted Intervention (MICCAI 2000), Pittsburgh, Springer LNCS: 134-143, 2000.	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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